Behavioral Ecology Vol. 7 No. 4: 501–505

Volume 7 Indexes

Subject Index

Adoption, 49–54
Advertisement, 101–108
Advertisement calls, 7–18
African lions, 55–59
Age, 417–425
Aggressiveness, 445–450
Aidablennius sphynx. *See* Blenny
Alauda arvensis. *See* Skylark
Alaudidae, 121–126
Alloparental care, 168–177
Alpine accentor, 183–188
Amphibia, 7–18
Animal signals, 304–315
Ant, 292–298
Antipredator behavior, 299–303
Antipredatory behavior, 30–34
Anura, 7–18
Arms race 395–407
Assessment, 451–460
Asymmetric games, 82–88
Atlantic salmon, 24–29
Australian golden orb-weaver, 195–198

Barn swallow, 132–136, 227–232
Bee, 158–164
Begging, 178–182
Bighorn sheep, 60–68
Birds, 49–54
Blenny, 353–361
Blue-footed booby, 82–88
Bombus, 158–164
Boobies, 82–88
Breeding coloration, 431–437
Breeding experience, 326–333
Brood dominance, 82–88
Brood parasitism, 89–94, 137–139, 395–407
Brood value, 127–131
Brown trout, 445–450

Caching, 140–144
Carnivores, 480–489
Carotenoids, 1–6
Ceratitis capitata. *See* Mediterranean fruit fly
Cichlasoma meeki. *See* Firemouth cichlids
Cichlid fish, 264–271
Clutch size, 109–114
Coati, 254–263
Coevolution, 89–94, 395–407
Colony size, 43–48
Coloration, 465–473
Common shrew, 334–340
Communal roosts, 115–119
Competition, 109–114, 199–207, 235–242, 379–386, 387–394
Computer simulation, 137–139
Condition, 474–479
Conspicuousness, 465–473
Cooperative breeding, 168–177, 326–333, 417–425
Copying, 151–157, 165–167
Costs of choice, 353–361
Costs of reproduction, 60–68
Courtship, 69–75
Courtship rate, 165–167
Crypsis, 465–473
Cuculus canorus. *See* European cuckoo
Currency, 341–352
Cynomys gunnisoni. *See* Gunnison's prairie dog

Deceit, 304–315
Development time, 35–42
Developmental stability, 247–253
Differential maternal investment, 60–68
Dilution effect, 353–361
Dipteryx, 254–263
Dispersal, 408–416, 480–489
Display behavior, 272–278
Distance-independent preference, 7–18
DNA fingerprinting, 95–100
Dogon, 304–315
Dominance, 247–253
Dunnock, 183–188
Dwarf mongoose, 480–489
Dynamic acoustic properties, 7–18
Dynamic programming, 189–194

Ectoparasites, 127–131
Egg preference, 213–217
Egg recognition, 89–94
Enzyme immunoassay, 304–315
Escape velocity, 299–303
European cuckoo, 89–94
European kestrel, 426–430
European starling, 178–182, 341–352
Evolution of pattern and color of host eggs, 89–94
Evolutionarily stable strategy, 490–493
Evolutionary equilibrium, 395–407
Evolutionary stability, 353–361
Experimental manipulations, 431–437
Experimental removal, 326–333
Extrapair fertilization, 218–226

Facultative strategy, 137–139
Familiarity, 76–81
Fecundity, 490–493
Female choice, 7–18, 101–108, 213–217, 279–285, 353–361, 431–437, 438–444
Female ornament, 132–136
Fertilization, 19–23
Field cricket, 279–285
Field vole, 30–34
Firemouth cichlids, 1–6
Fish, 353–361
Fitness, 35–42, 490–493
Fleeing, 264–271
Fluctuating asymmetry, 334–340
Food provisioning, 127–131
Foraging, 158–164, 254–263, 264–271, 387–394, 408–416, 438–444
Foraging area, 158–164
Foraging behavior, 494–500
Foraging models, 494–500
Foraging posture, 264–271

Foraging theory, 286–291
Four-year vole cycle, 30–34
Frequency dependent selection, 353–361

Gamma-globulins, 227–232
Gobiidae, 208–212
Grasshoppers, 438–444
Gray tree frog, 7–18
Great tit, 127–131
Ground squirrel, 76–81
Group hunting, 408–416
Group living, 254–263
Grouping, 55–59
Gryllus lineaticeps. See Field cricket
Gunnison's prairie dog, 95–100
Guppy, 151–157, 264–271, 272–278

Habitat choice, 474–479
Handling time, 494–500
Haplodiploidy, 292–298
Harbor seals, 408–416
Helpers, 168–177
Helping experience, 326–333
Hirundo rustica. See Barn swallow
Honest signaling, 304–315
Honey bees, 286–291
Host-marking pheromone, 235–242
Host size, 35–42
Hunger, 474–479
Hunting, 465–473
Hyla chrysoscelis. See Gray tree frog
Hyla versicolor. See Gray tree frog
Hymenoptera, 35–42

Ideal free distribution, 189–194, 379–386, 387–394
Immunocompetence, 227–232
Inbreeding avoidance, 480–489
Inbreeding depression, 480–489
Inclusive fitness, 24–29
Indirect fitness, 168–177
Individual variation in preference, 7–18
Infanticide, 49–54, 55–59
Information centers, 115–119
Information gathering, 69–75
Intensity of selection, 199–207
Interference, 379–386, 387–394
Intersexual selection, 431–437
Intrasexual selection, 431–437
Investment trade-off, 127–131

Japanese medaka, 165–167

Kestrel, 30–34
Killer whales, 408–416
Kin bias, 140–144
Kin-biased social behavior, 24–29
Kin discrimination, 24–29
Kin group, 95–100
Kin recognition, 445–450
Kinship, 76–81

Lacertid lizard, 145–150
Least weasel, 30–34
Lek, 370–373, 373–378
Life history, 426–430
Life-history strategy, 395–407
Life-history theory, 316–325
Local resource competition, 461–464

Male-male competition, 1–6, 195–198
Margin of safety, 299–303
Marmota monax. See Woodchuck
Mate acquisition, 69–75
Mate choice, 151–157, 165–167, 243–246, 362–369, 451–460, 480–489
Mate competition, 208–212
Maternal condition, 461–464
Mating, 474–479
Mating strategies, 438–444
Mating success, 247–253, 334–340
Mating system, 95–100
Mating tactics, 19–23
Mediterranean fruit fly, 235–242
Menstrual taboo, 304–315
Menstruation, 304–315
Microhabitat shift, 30–34
Migration, 121–126
Movement rules, 158–164
Mutualistic sharing, 140–144

Nasua narica. See white-nosed coatis
Natural selection, 35–42, 247–253, 465–473
Nectar foraging, 286–291
Nephila plumipes. See Australian golden orb-weaver
Nestling begging, 127–131
Nestling competition, 127–131

Obligatory strategy, 137–139
Odonata, 465–473
Operational sex ratio, 208–212
Opportunity for selection, 199–207
Optimal flight speed, 121–126
Optimal foraging, 341–352, 494–500
Optimal group size, 408–416
Orientation, 158–164
Ormia, 279–285
Ornaments, 243–246
Oryzias latipes. See Japanese medaka
Ovis canadensis. See Bighorn sheep

Panama, 254–263
Parasites, 145–150
Parasitoid wasp, 35–42, 387–394
Parasitoids, 109–114, 189–194, 279–285, 387–394
Parent-offspring conflict, 178–182, 235–242
Parental care, 490–493
Parental expenditure, 490–493
Parental investment, 235–242
Partial preferences, 494–500
Paternal care, 213–217, 353–361
Paternity, 95–100
Paternity assurance, 304–315
Paternity guard, 183–188
Penstemon strictus, 158–164
Phasianus colchicus. See Ring-necked pheasant
Pheidole pallidula. See Ant
Pipefish, 69–75
Playback experiments, 55–59
Poecilia reticulata. See Guppy
Polistinae, 43–48
Pomatoschistus minutus. See Sand goby
Population dynamics, 137–139
Population genetical model, 426–430
Population stability, 189–194
Predation, 69–75, 247–253, 279–285, 465–473
Predation risk, 151–157, 264–271
Predator, 465–473

Predator facilitation, 30–34
Prey, 465–473
Prey selection, 494–500
Procyonidae, 254–263
Productivity, 43–48
Profitability, 494–500
Prunella. *See* Alpine accentor
Psammodromus algirus. *See* Lacertid lizard
Pupfish, 431–437

Rainbow trout, 24–29
Raptors, 426–430
Rate maximization, 341–352
Recovery advantage, 140–144
Rejection behavior, 395–407
Renesting dispersal, 49–54
Repeatability, 7–18, 243–246
Replacement males, 49–54
Reproduction, 19–23, 132–136
Reproductive behavior, 69–75, 208–212
Reproductive success, 60–68, 316–325, 326–333, 417–425
Reproductive value, 316–325
Ring-necked pheasant, 362–369
Roaring, 55–59
Roe deer, 461–464

Salmonids, 445–450
Sand goby, 208–212, 213–217
Scheelea, 254–263
Sciuridae, 299–303
Seasonality, 426–430
Secondary sexual characters, 145–150
Senescence, 417–425
Sex allocation, 292–298, 316–325, 426–430
Sex ratio, 35–42, 60–68, 292–298, 316–325, 461–464
Sexual cannibalism, 195–198
Sexual selection, 7–18, 101–108, 132–136, 151–157, 199–207, 208–212, 218–226, 227–232, 243–246, 247–253, 279–285, 362–369, 465–473
Sexual size dimorphism, 132–136
Seychelles warbler, 326–333, 417–425
Sialia mexicana. *See* Western bluebird
Siberian jay, 140–144
Siblings, 445–450
Sibling competition, 82–88
Signaling, 1–6, 101–108, 127–131, 178–182
Simulation model, 353–361
Size dimorphism, 195–198
Skylark, 121–126
Social discrimination, 76–81
Social monogamy, 218–226
Social signal, 431–437
Social structure, 254–263, 408–416
Social wasps, 43–48
Sociality, 76–81
Song, 183–188
Song flight, 121–126
Sorex araneus. *See* Common shrew
Spatial learning, 158–164
Sperm competition, 334–340
Sperm limitation, 19–23
Spurs, 362–369
Starling, 178–182
State-dependent foraging decisions, 189–194
Sturnus vulgaris. *See* European starling
Sula nebouxii. *See* Blue-footed booby
Superparasitism, 109–114, 235–242
Swarms, 43–48
Syngnathidae, 69–75

Tachinid flies, 279–285
Taeniopygia guttata. *See* Zebra finch
Tail ornament, 227–232
Temperature, 208–212
Tephritidae, 235–242
Territoriality, 183–188
Testosterone, 145–150
Trade-off, 69–75
Trapline, 158–164
Tree frog, 7–18
Troglodytes troglodytes. *See* Wren

Urinary hormones, 304–315

Value of information, 451–460
Variance-mean relationship, 199–207
Venturia canescens. *See* Parasitoid wasp
Vespidae, 43–48
Vocal communication, 55–59

Water strider, 474–479
Water velocity, 272–278
Western bluebird, 168–177
White-nosed coatis, 254–263
Woodchuck, 299–303
Wren, 101–108

Yellow-headed blackbird, 49–54

Zebra finch, 218–226

Author/Title Index

Abelenda M. *See* Salvador A
Alerstam T. *See* Hedenström A
Aron S. *See* Keller L

Baird RW, Dill LM: Ecological and social determinants of group size in *transient* killer whales, 408–416
Bateson M, Kacelnik A: Rate currencies and the foraging starling: the fallacy of the averages revisited, 341–352
Belovsky GE, Slade JB, Chase JM: Mating strategies based on foraging ability: an experiment with grasshoppers, 438–444
Berglund A. *See* Fuller F
Bernstein C. *See* Sirot E
Bérubé CH, Festa-Bianchet M, Jorgenson JT: Reproductive costs of sons and daughters in Rocky Mountain bighorn sheep, 60–68
Bonenfant M, Kramer DL: The influence of distance to burrow on flight initiation distance in the woodchuck, *Marmota monax*, 299–303
Briggs SE, Godin J-GJ, and Dugatkin LA: Mate-choice copying under predation risk in the Trinidadian guppy (*Poecilia reticulata*), 151–157
Brodin A. *See* Ekman J
Brooker L. *See* Brooker M
Brooker M, Brooker L: Acceptance by the splendid fairy-wren of parasitism by Horsfield's bronze-cuckoo: further evidence for evolutionary equilibrium in brood parasitism, 395–407

Brown GE and Brown JA: Does kin-biased territorial behavior increase kin-biased foraging in juvenile salmonids?, 24–29
Brown JA. *See* Brown GE
Burley NT, Parker PG, and Lundy K: Sexual selection and extra pair fertilization in a socially monogamous passerine, the zebra finch (*Taeniopygia guttata*), 218–226
Burn JL. *See* Evans MR
Bylin A. *See* Ekman J

Carbone C, Taborsky M: Mate choice or harassment avoidance? A question of female control at the lek, 370–373
Carranza J. *See* Mateos C
Caselle J. *See* Gori DF
Chase JM. *See* Belovsky GE
Christe P, Richner H, Oppliger A: Begging, food provisioning, and nestling competition in great tit broods infested with ectoparasites, 127–131
Cichoń M: The evolution of brood parasitism: the role of facultative parasitism, 137–139
Clutton-Brock TH, McComb KE, Deutsch JC: Multiple factors affect the distribution of females in lek-breeding ungulates: A rejoinder to Carbone and Taborsky, 373–378
Cotton PA, Kacelnik A, Wright J: Chick begging as a signal: are nestlings honest?, 178–182
Creel SR. *See* Keane B
Cuervo JJ, de Lope F, Møller AP: The function of long tails in female barn swallows (*Hirundo rustica*): an experimental study, 132–136
Cuervo JJ. *See* Møller AP

Daan S, Dijkstra C, Weissing FJ: An evolutionary explanation for seasonal trends in avian sex ratios, 426–430
de Lope F. *See* Cuervo JJ
Deutsch JC. *See* Clutton-Brock TH
Dickinson JL, Koenig WD, Pitelka FA: Fitness consequences of helping behavior in the western bluebird, 168–177
Dijkstra C. *See* Daan S
Dill LM. *See* Baird RW
Drummond H. *See* Rodríguez-Gironés MA
Dugatkin LA. *See* Briggs SE
Dyson ML. *See* Gerhardt HC

Ekman J, Brodin A, Bylin A, Sklepkovych B: Selfish long-term benefits of hoarding in the Siberian jay, 140–144
Elgar MA, Fahey BF: Sexual cannibalism, competition, and size dimorphism in the orb-weaving spider *Nephila plumipes* Latreille (Araneae: Araneoidea), 195–198
Evans MR, Burn JL: An experimental analysis of mate choice in the wren: a monomorphic, polygynous passerine, 101–108
Evans MR, Norris K: The importance of carotenoids in signaling during aggressive interactions between male firemouth cichlids (*Cichlasoma meeki*), 1–6

Fahey BF. *See* Elgar MA
Festa-Bianchet M. See Bérubé CH
Fewell JH, Winston ML: Regulation of nectar collection in relation to honey storage levels by honey bees, *Apis mellifera*, 286–291
Fuller F, Berglund A: Behavioral responses of a sex-role reversed pipefish to a gradient of perceived predation risk, 69–75

Gaillard JM. *See* Hewison AJM
Gerhardt HC, Dyson ML, Tanner SD: Dynamic properties of the advertisement calls of gray tree frogs: patterns of variability and female choice, 7–18
Giraldeau L-A. *See* Shapiro DY
Godin J-GJ. *See* Briggs SE
Godin J-GJ. *See* Krause J
Gompper ME: Sociality and asociality in white-nosed coatis (*Nasua narica*): foraging costs and benefits, 254–263
Gori DF, Rohwer S, Caselle J: Accepting unrelated broods helps replacement male yellow-headed blackbirds attract mates, 49–54
Grant JWA, Green LD: Mate copying versus preference for actively courting males by female Japanese medaka (*Oryzias latipes*), 165–167
Grant JWA. *See* Ruzzante DE
Green LD. *See* Grant JWA
Grether GF, Grey RM: Novel cost of a sexually selected trait in the rubyspot damselfly *Hetaerina americana*: conspicuousness to prey, 465–473
Grey RM. *See* Grether GF
Grinnell J, McComb K: Maternal grouping as a defense against infanticide by males: evidence from field playback experiments on African lions, 55–59

Hakkarainen H. *See* Korpimäki E
Hamilton DC. *See* Ruzzante DE
Hare JF, Murie JO: Ground squirrel sociality and the quest for the "holy grail": does kinship influence behavioral discrimination by juvenile Columbian ground squirrels?, 76–81
Hedenström A, Alerstam T: Skylark optimal flight speeds for flying nowhere and somewhere, 121–126
Heeb P. *See* Richner H
Hewison AJM, Gaillard JM: Birth sex ratios and local resource competition in roe deer, *Capreolus capreolus*, 461–464
Hirvonen H, Ranta E: Within-bout dynamics of diet choice, 494–500

Järvi T. See Olsén KH
Jeanne RL, Nordheim EV: Productivity in a social wasp: per capita output increases with swarm size, 43–48
Johnsen TS, Zuk M: Repeatability of mate choice in female red jungle fowl, 243–246
Jones CS. *See* Stockley P
Jorgenson JT. *See* Bérubé CH

Kacelnik A. *See* Bateson M
Kacelnik A. *See* Cotton PA
Kacelnik A. *See* Rodríguez-Gironés MA
Kangas N. *See* Lindström K
Keane B, Creel SR, Waser PM: No evidence of inbreeding avoidance or inbreeding depression in a social carnivore, 480–489
Keim P. *See* Travis SE
Keller L, Aron S, Passera L: Internest sex-ratio variation and male brood survival in the ant *Pheidole pallidula*, 292–298
King BH: Fitness effects of sex ratio response to host quality and size in the parasitoid wasp *Spalangia cameroni*, 35–42
Kodric-Brown A: Role of male-male competition and female choice in the development of breeding coloration in pupfish (*Cyprinodon pecosensis*), 431–437
Koenig WD. *See* Dickinson JL
Koivunen V. *See* Korpimäki E
Komdeur J: Influence of age on reproductive performance in the Seychelles warbler, 417–425
Komdeur J: Influence of helping and breeding experience on reproductive performance in the Seychelles warbler: a translocation experiment, 326–333
Korpimäki E, Koivunen V, and Hakkarainen H: Microhabitat use and behavior of voles under weasel and raptor predation risk: predator facilitation?, 30–34
Kraak SBM, Weissing FJ: Female preference for nests with

many eggs: a cost-benefit analysis of female choice in fish with paternal care, 353–361
Kramer DL. *See* Bonenfant M
Kramer DL. *See* Ruzzante DE
Krause J, Godin, J-GJ: Influence of prey foraging posture on flight behavior and predation risk: predators take advantage of unwary prey, 264–271
Krupa JJ. *See* Rowe L
Kvarnemo C: Temperature affects operational sex ratio and intensity of male-male competition: an experimental study of sand gobies, *Pomatoschistus minutus*, 208–212

Langmore NE: Territoriality and song as flexible paternity guards in dunnocks and alpine accentors, 183–188
Leimar O: Life-history analysis of the Trivers and Willard sex-ratio problem, 316–325
Lindström K, Kangas N: Egg presence, egg loss, and female mate preferences in the sand goby (*Pomatoschistus minutus*), 213–217
Löf A-C. See Olsén KH
Lopez P. *See* Salvador A
Lundy K. *See* Burley NT
Luttbeg B: A Comparative Bayes tactic for mate assessment and choice, 451–460

Macdonald DW. *See* Stockley P
Martin J. *See* Salvador A
Mateos C, Carranza J: On the intersexual selection for spurs in the ring-necked pheasant, 362–369
McComb K. *See* Clutton-Brock TH
McComb K. *See* Grinnell J
Messing RH. *See* Papaj DR
Møller AP, Cuervo JJ, Soler JJ, Zamora-Muñoz C: Horn asymmetry and fitness in gemsbok, *Oryx g. gazella*, 247–253
Møller AP. See Cuervo JJ
Møller AP. *See* Saino N
Møller AP. *See* Soler JJ
Murie JO. *See* Hare JF

Nicoletto PF: The influence of water velocity on the display behavior of male guppies, *Poecilia reticulata*, 272–278
Nordheim EV. *See* Jeanne RL
Norris K. *See* Evans MR

Olsén KH, Järvi T, and Löf A-C: Aggressiveness and kinship in brown trout (*Salmo trutta*) parr, 445–450
Oppliger A. *See* Christe P

Papaj DR, Messing RH: Functional shifts in the use of parasitized hosts by a tephritid fly: the role of host quality, 235–242
Parker GA. *See* Tregenza T
Parker PG. *See* Burley NT
Passera L. *See* Keller L
Pitelka FA. *See* Dickinson JL
Puerta M. *See* Salvador A

Ranta E. *See* Hirvonen H
Ratnieks FLW: Evolution of unstable and stable biparental care, 490–493
Richner H. *See* Christe P
Richner H, Heeb P: Communal life: honest signaling and the recruitment center hypothesis, 115–118
Rodríguez-Gironés MA, Drummond H, Kacelnik A: Effect of food deprivation on dominance status in blue-footed booby (*Sula nebouxii*) broods, 82–88
Rohwer S. *See* Gori DF
Rowe L, Krupa JJ, Sih A: An experimental test of condition-dependent mating behavior and habitat choice by water striders in the wild: 474–479
Ruzzante DE, Hamilton DC, Kramer DL, Grant JWA: Scaling of the variance and the quantification of resource monopolization, 199–207

Saino N and Møller AP: Sexual ornamentation and immunocompetence in the barn swallow, 227–232
Salvador A, Veiga JP, Martin J, Lopez P, Abelenda M, Puerta M: The cost of producing a sexual signal: testosterone increases the susceptibility of male lizards to ectoparasitic infestation, 145–150
Searle JB. *See* Stockley P
Shapiro DY, Giraldeau LA: Mating tactics in external fertilizers when sperm is limited, 19–23
Sih A. *See* Rowe L
Sirot E, Bernstein C: Time sharing between host searching and food searching in parasitoids: state-dependent optimal strategies, 189–194
Sklepkovych B. *See* Ekman J
Slade JB. *See* Belovsky GE
Slobodchikoff CN. *See* Travis SE
Soler JJ. *See* Møller AP
Soler JJ, Møller AP: A comparative analysis of the evolution of variation in appearance of eggs of European passerines in relation to brood parasitism, 89–94
Stockley P, Searle JB, Macdonald DW, Jones CS: Correlates of reprodutive success within alternative mating tactics of the common shrew, 334–340
Strassmann BI: Menstrual hut visits by Dogon women: a hormonal test distinguishes deceit from honest signaling, 304–315

Taborsky M. *See* Carbone C
Tanner SD. *See* Gerhardt HC
Thompson DJ. *See* Tregenza T
Thomson JD: Trapline foraging by bumble bees: I. Persistence of flight-path geometry, 158–164
Travis SE, Slobodchikoff CN, Keim P: Social assemblages and mating relationships in prairie dogs: a DNA fingerprinting analysis, 95–100
Tregenza T, Parker GA, Thompson DJ: Interference and the ideal free distribution: models and tests, 379–386
Tregenza T, Thompson DJ, Parker GA: Interference and the ideal free distribution: oviposition in a parasitoid wasp, 387–394

Veiga JP. *See* Salvador A
Visser ME: The influence of competition between foragers on clutch size decisions in an insect parasitoid with scramble larval competition, 109–114

Wagner WE Jr: Convergent song preferences between female field crickets and acoustically orienting parasitoid flies, 279–285
Waser PM. *See* Keane B
Weissing FJ. *See* Daan S
Weissing FJ. *See* Kraak SBM
Winston ML. *See* Fewell JH
Wright J. *See* Cotton PA

Zahavi A: The evolution of communal roosts as information centers and the pitfall of group selection: a rejoinder to Richner and Heeb, 118–119
Zamora-Muñoz C. *See* Møller AP
Zuk, M. *See* Johnsen TS